



Biographies

Strategic Planning Advisory Committee

David Baltimore, PhD

Member, Independent Citizens' Oversight Committee of the CIRM

President, California Institute for Technology

David Baltimore, who has been the president of California Institute of Technology since 1997, was awarded the Nobel Prize at the age of 37 for research in virology. Baltimore has profoundly influenced national science policy on such issues as recombinant DNA research and the AIDS epidemic.

Baltimore's early investigations as a faculty member at Massachusetts Institute of Technology examined the molecular processes underlying the ability of poliovirus to infect cells, which led him to work on other RNA viruses and then to a consideration how cancer-causing RNA viruses manage to infect and permanently alter a healthy cell. He identified the enzyme reverse transcriptase, providing strong evidence for a process of RNA to DNA conversion, the existence of which had been hypothesized some years earlier. Baltimore and Howard Temin (with Renato Dulbecco, for related research) shared the 1975 Nobel Prize in Physiology or Medicine for their discovery, which has greatly expanded scientists' understanding of retroviruses such as HIV. He has contributed widely to the understanding of cancer, AIDS, and the molecular basis of the immune response.

In the mid-1970s, Baltimore played an important role in creating a consensus on national science policy regarding recombinant DNA research. He served as founding director of the Whitehead Institute for Biomedical Research at MIT from 1982 until 1990. An early advocate of federal AIDS research, Baltimore co-chaired the 1986 National Academy of Sciences committee on a National Strategy for AIDS and was appointed in 1996 to head the National Institutes of Health AIDS Vaccine Research Committee.

Baltimore received a doctorate degree from Rockefeller University and a bachelor's degree in chemistry from Swarthmore College.

Paul Berg, PhD

Alternate Member, Independent Citizens' Oversight Committee of the CIRM

Cahill Professor of Biochemistry, Emeritus, Stanford University School of Medicine

Paul Berg is Cahill Professor in Cancer Research, Emeritus, at the Stanford University School of Medicine, and director emeritus of the Beckman Center for Molecular and Genetic Medicine. A Nobel laureate, he is one of the principal pioneers in the field of "gene splicing." Berg, along with his colleagues Walter Gilbert and Frederick Sanger, was honored with the 1980 Nobel Prize

in Chemistry for developing methods that make it possible to map the structure and function of DNA.

His work on the genetic apparatus that directs the synthesis of proteins earned Berg the Eli Lilly Award in Biochemistry in 1959 and the California Scientist of the Year Award in 1963. He has twice been honored with the Henry J. Kaiser Award for Excellence in Teaching at the Stanford University School of Medicine and has won the Roche Institute for Molecular Biology's V. D. Mattia Prize, the Sarasota Medical Awards for Achievement and Excellence, the Annual Award of the Gairdner Foundation, the Albert Lasker Basic Medical Research Award, and the New York Academy of Sciences Award. He also has won the American Association for the Advancement of Science Scientific Freedom and Responsibility Award, the National Medal of Science, and the National Library of Medicine Medal.

A member of the National Academy of Sciences and the American Academy of Arts and Sciences since 1966, he also is a past president of the American Society of Biological Chemists, a foreign fellow of the French Academy of Sciences and the Royal Society in London, an elected member of the American Philosophical Society, honorary member of Alpha Omega Alpha Honor Medical Society, and a member of the American Academy of Achievement. He is a former chairman of the National Advisory Committee of the Human Genome Project.

Berg joined the faculty of the Stanford University School of Medicine in 1959 and was chairman of the Department of Biochemistry from 1969 to 1974. He was named Willson Professor of Biochemistry in 1970 and Cahill Professor in Cancer Research in 1994. Berg was director of the Beckman Center for Molecular and Genetic Medicine from 1985 through 2000.

George Daley, MD, PhD

Associate Professor of Pediatrics and Biological Chemistry at Boston Children's Hospital and Harvard Medical School

Associate Director of the Stem Cell Program at Children's Hospital Boston

George Q. Daley, M.D., Ph.D., Division of Health Sciences and Technology faculty member and alumnus, is an Associate Professor of Biological Chemistry and Molecular Pharmacology at Harvard Medical School. He received a bachelor's degree magna cum laude from Harvard University (1982), a Ph.D. in biology from MIT (1989), and the M.D. degree summa cum laude from Harvard Medical School through the Harvard-MIT Division of Health Sciences and Technology in 1991.

Dr. Daley's laboratory studies stem cell development and differentiation, emphasizing derivation of functional hematopoietic and germ cell elements from ES cells, and the genetic mechanisms that predispose to malignancy. Dr. Daley is Board Certified in Internal Medicine and Hematology, and is currently a staff physician in Hematology/Oncology at the Children's Hospital, the Dana Farber Cancer Institute, and the Brigham and Women's Hospital in Boston.

He has been elected to the American Society for Clinical Investigation, and has received research awards from Harvard Medical School, the National Institutes of Health, the New England Cancer

Society, the Burroughs Wellcome Fund, the Edward Mallinckrodt, Jr. Foundation, and the Leukemia and Lymphoma Society of America.

Steve Forman, MD

Professor, Hematology / Hematopoietic Cell Transplantation, City of Hope National Medical Center

Chair, Division of Hematopoietic Cell Transplantation, City of Hope National Medical Center

Stephen Forman, M.D., joined City of Hope's Hematology and Bone Marrow Transplantation program in 1978, subsequently becoming the director in 1987. He is the principal investigator for a \$15.3 million, five-year National Cancer Institute (NCI) bone marrow transplantation program project grant and co-principal investigator for a Strategic Program for Innovative Research on AIDS Treatment (SPIRAT) grant to study gene therapy for the treatment of AIDS patients. In addition, Dr. Forman is a member of City of Hope's (COH) Gene Therapy Advisory Board and the program leader for COH's NCI-designated Comprehensive Cancer Center's Hematologic Neoplasia Program.

An international leader in the field of bone marrow transplantation and hematologic malignancy, Dr. Forman is co-editor of *Hematopoietic Cell Transplantation*, a definitive textbook for scientists and health care professionals, which was also edited by E. Donnall Thomas, M.D., 1990 Nobel Prize winner for Physiology/Medicine, and professor of medicine, emeritus, at the University of Washington and Karl G. Blume, M.D., director of the Bone Marrow Transplantation Program at the Stanford University School of Medicine.

Prior to joining COH in 1978, Dr. Forman earned his bachelor's degree, cum laude, in philosophy from St. John's College in Annapolis, Maryland, and his medical degree with honors from the University of Southern California. He interned and served his residency in internal medicine at Harbor General-University of California Los Angeles Hospital, after which he completed fellowships in hematology at Los Angeles County-University of Southern California Medical Center and in medical oncology at COH.

Dr. Forman is a member of several national organizations, including the American Society of Hematology, the American Society of Clinical Oncology, the American Association for Cancer Research and the American Society of Blood and Marrow Transplantation. He also serves on the editorial boards of several scientific journals.

Zach W. Hall, PhD (Chair)

President, California Institute for Regenerative Medicine (CIRM)

As President of the California Institute for Regenerative Medicine (CIRM), Zach W. Hall is charged with running the day-to-day operations and overseeing the science of the agency. A renowned scientific administrator, Hall was most recently director of USC's Zilkha Neurogenetic Institute and senior associate dean for academic development in the Keck School of Medicine of USC. Before joining the Keck School in 2002, Hall was vice chancellor at UC San Francisco and director of the National Institute of Neurological Disorders and Stroke (NINDS), one of the National Institutes of Health.

Dr. Hall received his undergraduate degree in English from Yale University in 1958 and his PhD in Biochemistry (Medical Sciences) from Harvard University in 1966. From 1966 until 1968, he was a fellow in biochemistry at Stanford University School of Medicine. From 1968 until moving to UCSF in 1976 as professor of physiology and head of the new neuroscience program, he was on the faculty of the Harvard Medical School Department of Neurobiology.

Robert N. Klein

Chairman, Independent Citizens' Oversight Committee of the CIRM

As the creator and primary backer of Proposition 71, which led to the creation of the California Institute for Regenerative Medicine (CIRM), Klein has been an instrumental figure in advocating for research and the development of cures for a variety of causes including Alzheimer's and diabetes, and was recently honored by *Time* magazine as one of the "100 Most Influential People of the Year" in 2005.

Bob is President of Klein Financial Corporation, a real estate investment banking consulting company focused on affordable housing finance and development with a record of approximately \$3 billion in financing and developing public and private projects. Bob served for 6 years as a Board Member for the State of California Housing Finance Agency which has approximately \$8 billion in finance outstanding, an AA S&P Bond rating and a history of receiving national awards in almost every category of affordable housing. This public corporation of the State of California was created by legislation in 1976, which Bob wrote as the principal consultant to the California State Assembly and State Senate Joint Committee on Housing and Urban Renewal. Bob's commitment to advancing medical research originated in his youngest son Jordan's diagnosis with juvenile diabetes in 2001. In addition, his mother was diagnosed with Alzheimer's a year later; his father having died from heart disease over a decade earlier. In 2002, Bob was a principal negotiator, as a part of a JDRF team that worked successfully to pass a \$1.5 billion mandatory federal funding bill for an additional five years of Type 1 and Type 2 diabetes supplemental National Institutes of Health research funding. Bob currently serves on the board of the International Juvenile Diabetes Research Foundation.

Bob has a Bachelor of Arts in History with Honors from Stanford University and a Juris Doctorate from Stanford Law School.

Sherry Lansing

Member, Independent Citizens' Oversight Committee of the CIRM

Founder/CEO, The Sherry Lansing Foundation

Founder and current chair of the Sherry Lansing Foundation, a philanthropic organization focusing on cancer research, health and education, Ms. Lansing was the chair of the Motion Picture Group of Paramount Pictures from 1992 to 2005, where she oversaw the release of more than 200 films including Academy Award winners *Forrest Gump*, *Braveheart*, and highest grossing movie of all time, *Titanic*. A pioneering studio executive, Lansing is the first woman in the film industry to oversee all aspects of a studio's motion picture production.

Her distinguished career has earned her numerous honors, including the Woodrow Wilson Award for Corporate Citizenship, the Milestone Award from the Producers Guild of America, the Overcoming Obstacles Achievement Award for Business, the YWCA Silver Achievement Award, the Outstanding Woman in Business Award from the Women's Equity Action League, the Distinguished Community Service Award from Brandeis University, the Alfred P. Sloan, Jr. Memorial Award and an honorary Doctorate in Fine Arts from the American Film Institute. She was also the recipient of the Simon Wiesenthal Center Distinguished Service Award for the Performing Arts and was named the 1996 Pioneer of the Year by the Foundation of the Motion Picture Pioneers. In 2004, Lansing received the Horatio Alger Humanitarian Award.

Lansing serves on the Executive Committee of the Board of Directors of Friends of Cancer Research and as a Trustee of the American Association for Cancer Research. She continues to lend her energy and talents to such advisory boards and committees as the American Red Cross Board of Governors, the board of trustees for the Carter Center and Stop Cancer, a non-profit philanthropic group she founded in partnership with Dr. Armand Hammer.

Lansing is a Regent of the University of California and serves as chair of the University Health Services Committee. She graduated cum laude with a Bachelor of Science Degree from Northwestern University in 1966.

Ed Penhoet, PhD

Vice-Chairman, Independent Citizens' Oversight Committee of the CIRM

President, Gordon and Betty Moore Foundation

Edward E. Penhoet is currently the President of the Gordon and Betty Moore Foundation in San Francisco. Prior to becoming President, he served as the Foundation's Chief Program Officer for Science and Higher Education Programs.

Dr. Penhoet is the immediate past Dean of the School of Public Health and Professor of Public Health and of Molecular and Cell Biology at the University of California at Berkeley. Since 2000, he has been a director at Alta Partners, a pioneering venture capital firm that focuses on early-stage investing in life sciences, information technology, and communications. He is also a director and co-founder of Chiron Corporation, one of the world's leading biotechnology companies. Dr. Penhoet served as Chiron's President and Chief Executive Officer from the time he co-founded the company in 1981 until April 30, 1998.

For 10 years prior to founding Chiron, Dr. Penhoet was a faculty member of the Biochemistry Department of the University of California, Berkeley. While at Chiron, he continued as an adjunct member of the faculty, teaching a variety of courses. In May 1991, Dr. Penhoet received the first Distinguished Faculty Award in the Life Sciences from the department of Molecular and Cell Biology at the University of California, Berkeley. In 1992, Dr. Penhoet shared with Dr. William J. Rutter, a Chiron co-founder, the Northern California Entrepreneur of the Year Award presented by Ernst & Young and Inc. Magazine; in 1994, Penhoet and Rutter received jointly the Harvard Business School Northern California Alumni Chapter award as Entrepreneur of the Year.

Dr. Penhoet earned his A.B. in biology from Stanford University in 1963, and his Ph.D. in biochemistry from the University of Washington in 1968. He was a post-doctoral fellow at the University of California, San Diego, from 1968 to 1970.

William Rastetter, PhD

Former President and CEO Biogen Idec

William Rastetter joined Idec in 1986, roughly a decade after earning his doctorate in chemistry from Harvard University. After spending seven years on the faculty at the Massachusetts Institute of Technology, Rastetter joined a company named Genentech, Inc., one of the largest biotechnology companies in the world. Rastetter served in various capacities at Genentech, directing the company's Biocatalysis and Chemical Sciences groups and serving as the director of corporate ventures at the company.

In June 2002, as CEO of Idec, Dr. Rastetter helped guide the merger between Idec and Biogen, Inc, creating the third largest biotechnology company in the world at that time. In Dec 2005, Dr. Rastetter announced his plans to retire as Executive Chairman of the company at the end of that year.

Jeff Sheehy

Member, Independent Citizens' Oversight Committee of the CIRM

Communications Director UCSF AIDS Research Institute

Jeff Sheehy is director for communications at the AIDS Research Institute at UCSF. He is a longtime HIV/AIDS and gay civil rights activist and a person living with HIV. Sheehy most notably worked on Survive AIDS' project advocating for organ transplants for people with HIV. Survive AIDS, in collaboration with Assemblywoman (now Senator) Carole Migden, obtained funds for organ transplants for people with HIV. This initiative has not only saved lives of Californians with HIV/AIDS who needed transplants, but also led to a NIH funded protocol that is performing solid organ transplants in people with HIV at sites across the country.

In 1996, he and two colleagues conceived, drafted, and lobbied through San Francisco's historic Equal Benefits Ordinance, which requires that companies contracting with the City provide the domestic partners of employees the same benefits that spouses of employees receive. To support the legislation, he founded and led Equal Benefits Advocates, which conducted the successful national boycott of United Airlines that resulted in United, American, and US Airways offering domestic partner benefits to their employees worldwide in 1999. To date, over 3,500 companies have complied with the law. And, an estimated 50,000+ lesbians and gay men around the country have now obtained health insurance and other benefits for their domestic partners due to this law.

From 1998 to 2000, Sheehy served as a victim advocate for the San Francisco District Attorney. In that position, he assisted same-sex victims of domestic violence and hate crimes and conducted an advanced officer training class in same-sex domestic violence at the San Francisco Police Academy.

Sheehy was appointed HIV/AIDS advisor to San Francisco Mayor Gavin Newsom in 2004. Sheehy has been the recipient of the Cape Crusader Award from Equality California, the HRC Leadership Award from The Human Rights Campaign, the Tomas Fabregas AIDS Hero Award presented at San Francisco's AIDS Candlelight March in 2001 and was featured in OUT Magazine's OUT 100 list of the most influential members of the LGBT community in 1999. He received a bachelor's degree in history from the University of Texas in Austin.

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